

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of the claims in the application. Please cancel Claim 3, without prejudice or disclaimer.

Listing of Claims:

1. (original) A recording apparatus comprising:

a printing head which has a plurality of recording elements and performs recording on a recording medium;

a head holder which holds the printing head;

a flexible wiring board which is disposed on the outer side of the head holder and comprises: a flexible insulating band; a plurality of conductive wires; and a driver element for actuating the printing head, the conductive wires and the driver element being disposed on the flexible insulating band; and

a heatsink which is disposed between the flexible wiring board and the head holder and releases heat generated by the driver element.

2. (currently amended) ~~The recording apparatus according to claim 1, wherein~~ A
recording apparatus comprising:

a printing head which has a plurality of recording elements and performs recording on a recording medium;

a head holder which holds the printing head;

a flexible wiring board which is disposed on the outer side of the head holder and comprises: a flexible insulating band; a plurality of conductive wires; and a driver element for actuating the printing head, the conductive wires and the driver element being disposed on the flexible insulating band; and

a heatsink for releasing heat generated by the driver element, the heatsink being disposed between the flexible wiring board and the head holder such that the heatsink is directly held in close contact with a surface of the flexible wiring board insulating band which surface is opposite to another surface of the flexible wiring board insulating band on which the driver element disposed, at a position corresponding to a position in the another surface where the driver element is disposed.

Claim 3 – canceled

4. (currently amended) The recording apparatus according to claim 3, wherein A
recording apparatus comprising:

a printing head which has a plurality of recording elements and performs recording on a recording medium;

a head holder which holds the printing head and moves with the printing head in a direction;

a flexible wiring board which is disposed on the outer side of the head holder and comprises: a flexible insulating band; a plurality of conductive wires; and a driver element for actuating the printing head, the conductive wires and the driver element being disposed on the flexible insulating band; and

a heatsink for releasing heat generated by the driver element, the heatsink being disposed between the flexible wiring board and the head holder such that the heatsink is spaced from the outer surface of the head holder with a first clearance therebetween, the first clearance [[is]] being open to the atmosphere in its opposite ends in the direction of [[a]] the movement of the head holder and the printing head.

5. (original) The recording apparatus according to claim 1, wherein the heatsink comprises a first portion disposed between the flexible wiring board and the head holder and a second portion extending from an edge of the first portion into a space other than between the flexible wiring board and the head holder.

6. (currently amended) The recording apparatus according to claim 5, wherein A
recording apparatus comprising:

a printing head which has a plurality of recording elements and performs recording on a recording medium;

[[the]] a head holder which has [[is]] a substantially L-shaped portion comprising a first wall supporting the printing head and a second wall substantially vertically extending from an edge of the first wall [[and]];

a flexible wiring board which is disposed on the outer side of the head holder and comprises: a flexible insulating band; a plurality of conductive wires; and a driver element for actuating the printing head, the conductive wires and the driver element being disposed on the flexible insulating band;

a relay circuit board which is disposed on the outer side of the second wall with a space therebetween, and to which the flexible wiring board is connected is disposed on the outer side of the second wall with a space therebetween; and

a heatsink for releasing heat generated by the driver element, the heatsink being disposed between the flexible wiring board and the head holder and comprising a first portion disposed between the flexible wiring board and the head holder and a second portion extending from an edge of the first portion into a space other than between the flexible wiring board and the head holder, the, and wherein first portion of the heatsink extends extending from the vicinity of a connecting portion where the edge of the first wall and an edge of the second wall are connected, and the second portion of the heatsink extends extending into a space between the relay circuit board and the head holder.

7. (currently amended) The recording apparatus according to claim 6, wherein there is a first clearance between the heatsink and the outer surface of the head holder, and there is a second clearance between the heatsink and the relay circuit board.

8. (currently amended) The recording apparatus according to claim 7, wherein the head holder moves with the printing head in a direction, and the second clearance between the heatsink and the relay circuit board is open to the atmosphere in its opposite ends in a the direction of the movement of the printing head and the head holder.

9. (currently amended) The recording apparatus according to claim 6, wherein:
the flexible wiring board connects the printing head fixed to the first wall and the relay circuit board which is spaced from the second wall and is substantially parallel to the second

wall, the flexible wiring board including a slant portion which obliquely extending at a blunt angle with both the first wall and the second wall and on which the driver element is fixed; and

the first portion of the heatsink serves as a contact portion and is held in contact with the surface of the flexible wiring board insulating band which surface is opposite to the another surface of the flexible wiring board insulating band on which the driver element is disposed, at the position corresponding to the position in the another surface on which the driver element is disposed, and the second portion of the heatsink extends from the edge of the first portion on the side of the relay circuit board into the space between the second wall and the relay circuit board.

10. (currently amended) The recording apparatus according to claim 1, further comprises a carriage which is movable in a direction substantially parallel to the recording medium with the printing head and the head holder, and wherein the heatsink has a planar surface substantially parallel to a direction of movement of the carriage.

11. (currently amended) The recording apparatus according to claim 1, further comprising:

A recording apparatus comprising:

a printing head which has a plurality of recording elements and performs recording on a recording medium;

a head holder which holds the printing head;

a flexible wiring board which is disposed on the outer side of the head holder and comprises: a flexible insulating band; a plurality of conductive wires; and a driver element for actuating the printing head, the conductive wires and the driver element being disposed on the flexible insulating band;

a heatsink which is disposed between the flexible wiring board and the head holder and releases heat generated by the driver element;

a cover which is disposed on a side of the flexible wiring board opposite to the head holder, and protects the flexible wiring board; and

an elastic member provided between the driver element and the cover [[,]] such that the driver element being— is pressed toward the heatsink by a pressing force of the elastic member.

12. (currently amended) The recording apparatus according to claim 2, further comprising: a cover which is disposed on a side of the flexible wiring board opposite to the head holder, and protects the flexible wiring board; and an elastic member provided between the driver element and the cover, the driver element being pressed to the heatsink via the flexible ~~wiring board insulating band~~, by a pressing force of the elastic member.

13. (original) The recording apparatus according to claim 6, wherein the second wall extends substantially vertically in a direction opposite to the direction of the gravity from the first wall, and the heatsink extends in the same direction from the vicinity of the connecting portion of the edge of the first wall and the edge of the second wall, in substantially parallel to the second wall.

14. (currently amended) The recording apparatus according to claim [[1]] 12, wherein a portion of the surface of the heatsink to be opposed to the head holder, which portion comprises a first area corresponding to the driver element and a second area surrounding and adjacent to the first area, is not in contact with the head holder.

15. (new) The recording apparatus according to claim 1, wherein the heatsink is directly held in close contact with a surface of the flexible insulating band which surface is opposite to another surface of the flexible insulating band on which the driver element is disposed, at a position corresponding to a position in the another surface where the driver element is disposed.

16. (new) The recording apparatus according to claim 1, wherein the heatsink comprises a first portion disposed between the flexible wiring board and the head holder and a second portion extending from an edge of the first portion into a space other than between the flexible wiring board and the head holder.

17. (new) The recording apparatus according to claim 1, further comprising: a cover which is disposed on a side of the flexible wiring board opposite to the head holder, and protects the flexible wiring board; and an elastic member provided between the driver element and the cover, the driver element being pressed toward the heatsink by a pressing force of the elastic member.

18. (new) The recording apparatus according to claim 1, wherein a portion of the surface of the heatsink to be opposed to the head holder, which portion comprises a first area corresponding to the driver element and a second area surrounding and adjacent to the first area, is not in contact with the head holder.

19. (new) The recording apparatus according to claim 2, further comprising: a cover which is disposed on a side of the flexible wiring board opposite to the head holder, and protects the flexible wiring board; and an elastic member provided between the driver element and the cover, the driver element being pressed to the heatsink via the flexible insulating band, by a pressing force of the elastic member.

20. (new) The recording apparatus according to claim 2, wherein a portion of the surface of the heatsink to be opposed to the head holder, which portion comprises a first area corresponding

to the driver element and a second area surrounding and adjacent to the first area, is not in contact with the head holder.

21. (new) The recording apparatus according to claim 6, wherein the heatsink is directly held in close contact with a surface of the flexible insulating band which surface is opposite to another surface of the flexible insulating band on which the driver element is disposed, at a position corresponding to a position in the another surface where the driver element is disposed.

22. (new) The recording apparatus according to claim 6, wherein the head holder moves with the printing head in a direction, and the recording on the recording medium by the printing head is performed while the printing head and the head holder are moving in the direction, and the heatsink is spaced from the outer surface of the head holder with a first clearance therebetween, the first clearance being open to the atmosphere in its opposite ends in the direction of the movement of the printing head and the head holder.

23. (new) The recording apparatus according to claim 6, further comprising: a cover which is disposed on a side of the flexible wiring board opposite to the head holder, and protects the flexible wiring board; and an elastic member provided between the driver element and the cover, the driver element being pressed toward the heatsink by a pressing force of the elastic member.

24. (new) The recording apparatus according to claim 6, wherein a portion of the surface of the heatsink to be opposed to the head holder, which portion comprises a first area corresponding to the driver element and a second area surrounding and adjacent to the first area, is not in contact with the head holder.

25. (new) The recording apparatus according to claim 11, wherein a portion of the surface of the heatsink to be opposed to the head holder, which portion comprises a first area corresponding to the driver element and a second area surrounding and adjacent to the first area, is not in contact with the head holder.